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(WO/2005/064647) METHOD AND APPARATUS FOR CLEANING SEMICONDUCTOR WAFERS USING COMPRESSED AND/OR PRESSURIZED FOAMS, BUBBLES, AND/OR LIQUIDS

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Applicants: LAM RESEARCH CORPORATION [US/US]; 4650 Cushing Parkway, Fremont, CA 94538-6517 (US) (*All Except US*).

DE LARIOS, John, M. [US/US]; 941 Loma Verde, Palo Alto, CA 94303 (US) (*US Only*).

RAVKIN, Mike [US/US]; 1215 Knickerbocker Drive, Sunnyvale, CA 94087 (US) (*US Only*).

FARBER, Jeffrey [US/US]; 24 Wexford Road, Delmar, NY 12054 (US) (*US Only*).

KOROLIK, Mikhail [US/US]; 1751 Wayne Circle, San Jose, CA 95151 (US) (*US Only*).

REDEKER, Fritz [US/US]; 1801 Sioux Drive, Fremont, CA 94539 (US) (*US Only*).

OWCZARZ, Aleksander [US/US]; 7523 Deveron Ct., San Jose, CA 95135 (US) (*US Only*).

Inventors: DE LARIOS, John, M. [US/US]; 941 Loma Verde, Palo Alto, CA 94303 (US).

RAVKIN, Mike [US/US]; 1215 Knickerbocker Drive, Sunnyvale, CA 94087 (US).

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KOROLIK, Mikhail [US/US]; 1751 Wayne Circle, San Jose, CA 95151 (US).

REDEKER, Fritz [US/US]; 1801 Sioux Drive, Fremont, CA 94539 (US).

OWCZARZ, Aleksander [US/US]; 7523 Deveron Ct., San Jose, CA 95135 (US).

Agent: CURTIS, Anthony, P.; Brinks Hofer Gilson & Lione, P.O. Box 10087, Chicago, IL 60610 (US).

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Title: METHOD AND APPARATUS FOR CLEANING SEMICONDUCTOR WAFERS USING COMPRESSED AND/OR PRESSURIZED FOAMS, BUBBLES, AND/OR LIQUIDS

Abstract: An apparatus and method are disclosed in which a semiconductor substrate having a surface containing contaminants is cleaned or otherwise subjected to chemical treatment using a foam. The semiconductor wafer is supported either on a stiff support (or a layer of foam) and foam is provided on the opposite surface of the semiconductor wafer while the semiconductor wafer is supported. The foam contacting the semiconductor wafer is pressurized using a form to produce a jammed foam. Relative movement between the form and the semiconductor wafer, such as oscillation parallel and/or perpendicular to the top surface of the semiconductor wafer, is then induced while the jammed foam is in contact with the semiconductor wafer to remove the undesired contaminants and/or otherwise chemically treat the surface of the semiconductor wafer using the foam.

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